

Specifications



Form			14 January			15 January		
Number of students			14 January			15 January		
Form Number Date	Class Level	Min. Age (years)	142 x 100cm					
		Min. Height (cm)	Long (cm)					
		4 LE Floor area	1.1 - 1.2					
Teacher's specialty (school)			Min. 10 x 10 cm (10 x 10 cm) (10 x 10 cm)					
Title	Room		10 x 10 cm (10 x 10 cm) (10 x 10 cm)					
	Size (m ²)		10 x 10 cm (10 x 10 cm) (10 x 10 cm)					
Other			10 x 10 cm (10 x 10 cm) (10 x 10 cm)					
General description (area)			10 x 10 cm (10 x 10 cm) (10 x 10 cm)					
Description			10 x 10 cm			10 x 10 cm		
Number of students			10 x 10 cm			10 x 10 cm		
Maximum number of people (m ²)			10 x 10 cm			10 x 10 cm		
Maximum number of people			10 x 10 cm			10 x 10 cm		
Maximum number of people			10 x 10 cm			10 x 10 cm		

SP Series



Metric		BFCC	BFCC
Mapset, Variability		of Dignity	of Dignity
Mapset		of Dignity	of Dignity
Mapset		of Dignity	of Dignity
Mapset	Mapset	of Dignity	of Dignity
	Mapset	of Dignity	of Dignity
	Mapset	of Dignity	of Dignity
	Mapset	of Dignity	of Dignity
Mapset	Mapset	of Dignity	of Dignity
	Mapset	of Dignity	of Dignity
	Mapset	of Dignity	of Dignity
	Mapset	of Dignity	of Dignity
Mapset	Mapset	of Dignity	of Dignity
	Mapset	of Dignity	of Dignity
	Mapset	of Dignity	of Dignity
	Mapset	of Dignity	of Dignity
Mapset	Mapset	of Dignity	of Dignity
	Mapset	of Dignity	of Dignity
	Mapset	of Dignity	of Dignity
	Mapset	of Dignity	of Dignity

© 2008 The Authors
Journal compilation © 2008 Blackwell Publishing Ltd

© 2006 The Authors
Journal compilation © 2006 Blackwell Publishing Ltd

W001 | The Future | W002 | The Future | W003 | The Future | W004 | The Future

Abstract

Journal of Management Inquiry 24(1) 3-17
© The Author(s) 2015
Reprints and permissions: sagepub.com/journalsPermissions.nav
DOI: 10.1177/1056492615575001

1. **THEORY** 2. **EXPERIMENT** 3. **CONCLUSION**

© 2004 Blackwell Publishing Ltd *Journal of Internal Medicine* 255: 105–112

Received 12 May 2006; revised 11 July 2006; accepted 11 July 2006
Published online 12 September 2006 in Wiley InterScience (www.interscience.wiley.com). DOI: 10.1002/anie.200601100



Haruwa
Tachibana

EMPOWER YOUR SMART FACTORY



Hanwha
Techno

EXCEN
LINE SOLUTION



EXCEN PRO Series



- Achieves the World's Top Tier Area Productivity (Vgantry)
- High Speed Placement with Stylus of Modular Head

HS Head (High Speed)

- 18 Spindles
- 30,000 CPH/Head
- Φ30 (5mm Max H3mm)



MF Head (Medium Feed)

- 18 Spindles
- 10,000 CPH/Head
- Φ40 (10mm H3mm)
- 1.33mm (Max H3mm)



HP Head (High Precision)

- 2 Spindles
- 5,000 CPH/Head
- Φ40 (10mm H3mm)
- 1.33mm (Max H3mm)



*Order options available as defined by
Machine System

EXCEN PRO^M (4G)

The EXCEN PRO^M is a four-gantry type high-speed modular machine. It is designed for high-speed placement of up to 125,000 CPH with the rotary type HP head with 18 spindles installed up each of the 4 gantries.



High speed placement of up to 125,000 CPH

EXCEN PRO^D (2G)

The EXCEN PRO^D is a two-gantry type high-speed modular machine. It is designed for high-speed placement of up to 125,000 CPH with the rotary type HP head with 18 spindles installed up each of the 2 gantries.



High speed placement of up to 125,000 CPH

High speed placement of up to 125,000 CPH



Head
Stage Head

EXCEN PRO^M (4G)



4 Gantry
18 Spindles/Head
4 Stage Head

EXCEN PRO^D (2G)



2 Gantry
18 Spindles/Head
2 Stage Head

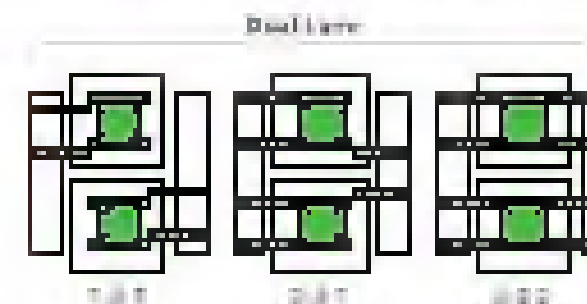
EXCEN PRO^D (2G)



2 Gantry
18 Spindles/Head
2 Stage Head

SP2-C

- Placement Cycle Speed: 1.5sec (Max) 1.2sec (Typ)
- Placement Accuracy: ±0.05mm (Max)
- Approach PCB: Max 354mm (254mm) Min 64mm (40mm)
- Machine Size: 1,276mm (L) x 1,246mm (W) x 1,246mm (H)



Special Features

HIGH RELIABILITY

Backup Pin Insert

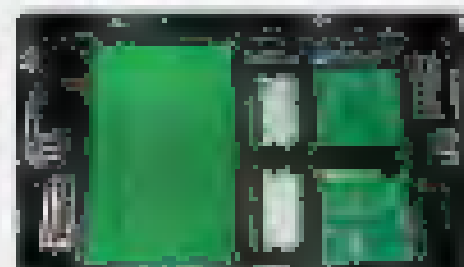
Automatically backfills components for blind insert.
Reducing defects and scrap rate requirements



FLEXIBLE PRODUCTION

Double Sided Board Feature

Allows mixed production of different boards as well as simultaneous production of several products



Manufacturing of Double Sided

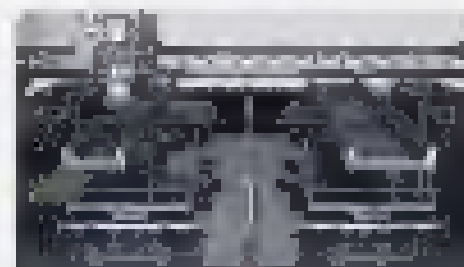
Dynamic Vision System (DVS)

Automatically picks up part position variations as well as rotating part placement on the PCB



Feeding Optimization

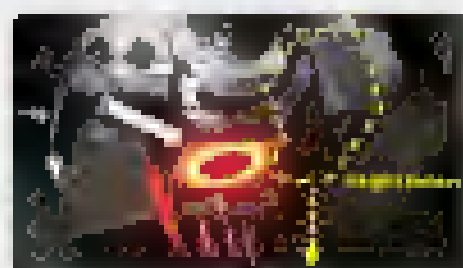
Reduces changeover of reels with the other's feeding
Minimizes the material spending rate



Feeding Optimization

Automatic Plug Height Compensation

Automatically compensates for part picking height using a height sensor



Automatic Plug Height Compensation

Output Buffer

Allows continuous production in the working zone as well as the end customer by adding a stock symbol



EASY OPERATION

Auto Feeder

Reduces time & cost with auto feeding and auto picking features
Applicable also with a multi-layer board



Super Thin Single Layer Circuitry

Online Feeding

Control feeder operational parameters



Easy Part Editor

An editor that can easily register components through a top and down the component editor registers component information through a simple clicking of the mouse



POP Capability

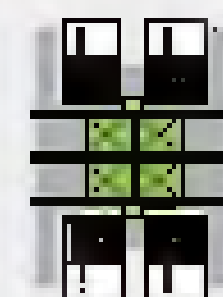
Allows for high precision POP work at high speed by recovering a missing POP from feeding unit



Feeding Unit

VARIOUS CONFIGURATION

- Maximum Strip Feeder Support
- Support of Mixed Mounting Application Part Range



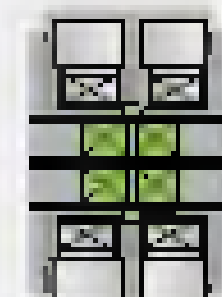
4 Feeding Unit



8 MD + 1 Feeder



2 MD + 2 Feeder



4 Feeder

Smart Pick Tray Feeder Support

Allows for improved use of a feeder and minimized feeder slot for waste long pick feeder



Smart Pick



Pick Tray